IN THE CLAIMS

Please amend the claims to be in the form as follows:

Claim 1 (previously presented): An optical head for scanning an optical record carrier having an information layer, the head comprising a radiation source for generating a radiation beam, an optical system for converging the radiation beam to a focus on the information layer along an optical axis, the optical system imparting a temperature-dependent first wavefront deviation to the radiation beam, and a compensator arranged in the radiation beam for compensating the first wavefront deviation, characterized in that the compensator comprises a phase structure of a material having temperature-dependent properties, the phase structure having the form of a plurality of annular areas forming a non-periodic pattern of optical paths of different, temperature-dependent lengths, the optical paths forming a second wavefront deviation compensating the temperature-dependent first wavefront deviation, wherein the annular areas each have a width measured radially from the optical axis and a consistent height measured along the optical axis.

Claim 2 (original): Optical head according to Claim 1, wherein the optical system comprises an objective system imparting spherical aberration as the first wavefront deviation to the radiation beam.

Claim 3 (original): Optical head according to Claim 1, wherein the optical system comprises a collimator lens and an objective lens, the collimator lens being arranged closer to the radiation source than the objective lens, the objective lens imparting defocus as the first wavefront aberration to the radiation beam.

Claim 4 (original): Optical head according to Claim 1, wherein the differences between the optical paths are multiples of the wavelength of the radiation beam for at least one temperature.

Claim 5 (original): Optical head according to Claim 4, wherein at least one of the multiples is equal to two or larger.

Claim 6 (original): Optical head according to Claim 1, wherein the temperature-dependence of the first wavefront deviation is due to the temperature dependence of the wavelength of the radiation beam generated by the radiation source.

Claim 7 (original): A device for scanning an optical record carrier having an information layer, the device comprising an optical head according to Claim 1 and an information processing unit for error correction.

Claim 8 (previously presented): An optical system comprising an optical element and a compensator, the optical element being arranged in the path of a radiation beam along an optical axis and imparting a temperature-dependent first wavefront deviation to the radiation beam, the compensator being arranged in the path of the radiation beam for compensating the first wavefront deviation, characterized in that the compensator comprises a phase structure of a material having temperature-dependent properties, the phase structure having the form of a plurality of annular areas forming a non-periodic pattern of optical paths of different, temperature-dependent lengths, the optical paths forming a second wavefront deviation compensating the temperature-dependent first wavefront deviation, wherein the annular areas each have a width measured radially from the optical axis and a consistent height measured along the optical axis.

Claim 9 (original): Optical system according to Claim 8, wherein the differences between the optical paths are multiples of the wavelength of the radiation beam for at least one temperature.

Claim 10 (original): Optical system according to Claim 8, wherein the first wavefront deviation is spherical aberration.

Claim 11 (original): Optical system according to Claim 8, wherein the first wavefront deviation is defocus.

Claim 12 (original): Optical system according to Claim 8, wherein the optical element is a lens.

Claim 13 (original): Optical system according to Claim 8, wherein the optical element and the compensator are integrated in a single element.

Claim 14 (original): Optical system according to Claim 8, including a diffractive structure.

Claim 15 (previously presented): Optical head according to Claim 1, wherein the heights of the annular areas differ forming a step pattern proceeding radially from the optical axis.

Claim 16 (currently amended): Optical head according to Claim 1, wherein widths of the annular areas is are substantially greater than the heights.

Claim 17 (previously presented): Optical head according to Claim 1, wherein the annular areas cause an integral number of 2π phase changes in the radiation beam.

Claim 18 (previously presented): Optical system according to Claim 8, wherein the heights of the annular areas differ forming a step pattern proceeding radially from the optical axis.

Claim 19(previously presented): Optical system according to Claim 8, wherein widths of the annular areas is substantially greater than the heights.

Claim 20 (previously presented): Optical system according to Claim 8, wherein the annular areas cause an integral number of 2π phase changes in the radiation beam.